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Acute Coronary Syndromes

IMMUNOHISTOCHEMICAL AND MOLECULAR CHARACTERISTICS OF CORONARY THROMBUS RESISTANT TO FIBRINOLYSIS

ACC Moderated Poster Contributions
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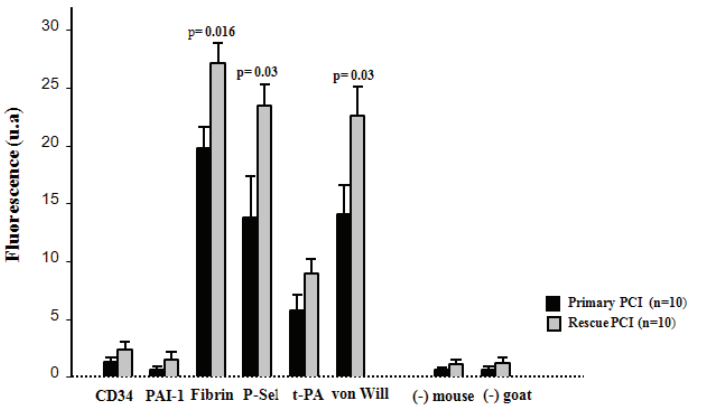
Background: The fibrinolysis is ineffective in 40% of patients with ST-segment elevation acute myocardial infarction (STEMI). The purpose of this study is to compare the content of thrombotic and fibrinolytic factors into the thrombus resistant to fibrinolysis, regarding to the thrombus sensible to lysis.

Methods: 20 patients who underwent to PCI for a first STEMI with TIMI 0 were included. From those, 10 were underwent to primary PCI and another 10 to rescue PCI for ineffective fibrinolysis (TNK). Out of them, the coronary thrombus was obtained during PCI by aspiration. Fibrin levels, CD34, Von Willebrand Factor (VWF), inhibitor plasmin active (PAI-1), P-selectin, tisular plasmin activator (t-PA) were determined by inmunofluorescency (inmunofluorescency arbitrary units: i.a.f). In all patients who underwent primary PCI we induced "in vitro" a thrombus formation by thrombin, and an effective thrombolysis was verified by r-TPA.

Results: There were no differences in age, sex, cardiovascular factors, time symptoms onset to balloon, infarct localization and number of injured vessels. Patients who were underwent to rescue PCI showed significantly higher levels of fibrin, P-selectin and VWF than patients who were underwent to primary PCI (Figure 1).

Conclusion: Patients with STEMI and ineffective fibrinolysis present a disturbance of thrombus structure, with a higher component of fibrin and platelets, as well as their content, with higher levels of VWF.



Marked with Ac anti-mouse: CD34, P-Sel, von Will
Marked with Ac anti-goat: PAI-1, tPA